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— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

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(54) Title: IMMUNIZATION WITH PORPHYROMONAS GINGIVALIS PROTECTS AGAINST HEART DISEASE

(57) Abstract: The invention is directed to a method of preventing and treating a patient having a risk factor and/or a symptom of cardiovascular disease using an immunogenic composition comprising an immunogenically effective portion of Porphyromonas gingivalis in a pharmaceutically effective carrier substance, and a vaccine for same.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US03/37013

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 39/00, 39/02
US CL : 424/184.1, 234.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 424/184.1, 234.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
BIOSIS, SCISEARCH, VETU, VETB, AGRICOLA, JAPIO, USPATFUL, EUROPATFUL

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MEDLINE, PUBMED

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Y	Database EMBASE on STN, AN:1998417201, LAMONT, R.J. ET AL, Life Below the Gum Line: Pathogenic Mechanisms of Porphyromonas gingivalis, Microbiology and Molecular Biology Reviews, 1998, Vol. 62, No. 4, pages 1244-1263. See the Abstract.	1-7
Y	Database EMBASE on STN, AN:2001371735, LOESCHE, W.J. ET AL, Periodontal Disease as a Specific, Albeit Chronic, Infection: Diagnosis and Treatment, Clinical Microbiology Reviews, 2001, Vol. 14, No. 4, pages 727-752. See the Abstract.	1-7



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* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"P" document published prior to the international filing date but later than the priority date claimed		

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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703)305-3230	Authorized officer Vanessa L. Ford <i>J. Roberts for</i> Telephone No. 571.272.1600

INTERNATIONAL SEARCH REPORT

PCT/US03/31013

C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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